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THE MORE IMPORTANT RECORDS FOR SEPTEMBER 1936

Grasshoppers were dying off rapidly during the last week of September. A heavy oviposition was observed over most of the territory infested.

The fall armyworm occurred in outbreak numbers from Virginia and Tennessee southward to the Gulf.

The wheat midge in the Puyallup Valley of Washington has been found as far south as Puyallup, nearly 50 miles south of any previously known infested territory. In the older infested territory as high as 50 percent of the wheat kernels were destroyed.

Wheat stem sawflies have been abundant this season in the Middle Atlantic and East Central States, the infestation in Ohio being especially heavy.

Corn ear worm, which has been unusually scarce throughout the season, developed rapidly during September from New England and Iowa to North Carolina and Tennessee. Late corn and tomatoes were seriously damaged in many sections. This insect was also reported as doing commercial damage to tomatoes in California and Mississippi, and to lima beans in North Carolina.

European corn borer has been found for the first time in Norfolk and Princess Anne Counties, on the mainland of Virginia.

Chinch bug was moving into winter quarters during the last 2 weeks of September.

Alfalfa caterpillar was reported seriously damaging sweetpotatoes in Tennessee and doing heavy damage to alfalfa in Colorado and California.

The cotton leaf worm moths were reported as seriously damaging late peaches in Missouri and flights of this insect were reported from Connecticut.

Heavy late boll weevil infestations were reported along the Atlantic seaboard and considerable damage was being done in late fields.

Defoliation of cotton by leaf worm was quite general throughout the Cotton Belt. Late cotton also suffered from bollworm depredations.

A serious outbreak of the eastern spruce beetle was reported from the Green Mountain National Forest in Vermont. Over 90 percent of the merchantable spruce in limited areas has been killed.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

- Indiana. C. M. Packard and associates (September 18): Adults of Melanoplus mexicanus Sauss., M. differentialis Thos., and M. femur-rubrum Deg. are from common to abundant everywhere around Lafayette. While working in experimental plots and wheat stubble fields noted some eggs in soil. Eggs have been unusually noticeable on automobiles, where hoppers have smashed against them.
- Illinois. W. P. Flint (September 24): Egg laying has been general for about 3 weeks and is still going on. Weather conditions have been very favorable for the hoppers during the egg-laying period. Hoppers are now dying very rapidly, especially the differential grasshopper.
- Missouri. L. Haseman (September 25): Grasshoppers have been ovipositing now for some time in central Missouri but the peak of egg laying has not been reached. Adults are much less abundant over most of the State than during the summer, but indications are that a good supply of eggs is being deposited. Hoppers are damaging the margins of alfalfa and fall-seeded small grains. About half of the grasshoppers at this season are M. differentialis, the other half being about equal numbers of M. femur-rubrum and M. mexicanus.
- Tennessee. G. M. Bentley (September 2): J. C. Moser reports large numbers of M. femur-rubrum in pastures in western Tennessee.
- Alabama. J. M. Robinson (September 25): Adult grasshoppers are attracting attention at Bessemer.
- Mississippi. C. Lyle (September 24): Grasshoppers were stripping about 200 acres of soybeans at Cruger on September 14. Apparently most of the damage was being done by M. mexicanus. Dissosteira carolina L., M. differentialis, and M. femur-rubrum were also collected.
- Nebraska. M. H. Swenk (September 23): A delayed late-August and September hatch of grasshoppers, principally of the two-striped grasshopper (M. bivittatus Say), has caused some apprehension among farmers in Cass, Saunders, Gage, York, Nuckolls, and adjacent counties.
- Oklahoma. C. F. Stiles (September 25): M. differentialis still quite numerous along creeks and fence rows and in some parts of the State is damaging alfalfa. Most of the other species numerous earlier in the season have died.
- Colorado. S. C. McCampbell (September 21): J. R. Parker and R. L. Shotwell were with me last week investigating a heavy infestation of Dissosteira longipennis Thos. (commonly known as the long-winged locust of the plains), involving 100 square miles of southeastern Colorado. Part of this area is heavily infested with eggs, as many as 1,600 per square foot having been estimated in some parts of the fields.

MORMON CRICKET (Anabrus simplex Hald.)

Nevada. D. F. Barnes (July 28): While driving west through Nevada on July 18, I crossed a heavy infestation of Mormon crickets extending from about 10 miles east to about 10 miles west of Elko. On the west side of Elko control work was being carried on. At one point where the barriers had been removed there was a strip of dead crickets from 14 to 16 inches wide and several miles long. The infestation at Emigrant Pass between Carlin and Dunphy was lighter than in the latter part of May, but individuals were still crossing the road. The infestations constituted a motor hazard.

G. G. Schweis (September 14): Specimens of a wasp found attacking Mormon crickets in eastern Nevada were identified by G. A. Sandhouse as Chlorion laeviventris Cress.

FIELD CRICKET (Gryllus assimilis F.)

Iowa. H. E. Jaques (September 23): Carroll County reports moderately heavy losses from black crickets.

Texas. O. G. Babcock (September 20): Black crickets following heavy rains were very numerous at Austin about the business buildings at night, wherever the store lights were on. They were so numerous they could be swept up into piles and scooped up. The sidewalks were covered at night. A few were about at Sonora.

EUROPEAN EARWIG (Forficula auricularia L.)

New York. E. P. Felt (September 25): The European earwig was found to be well established at Roslyn, L. I., on September 9.

CUTWORMS (Noctuidae)

Tennessee. E. W. Howe (September): There has been a serious outbreak of several species of cutworms at Clarksville during August. Tobacco and corn on low ground, which had remained comparatively damp during the drought, were seriously infested. Apparently the moths flew to the greenest herbage available and laid their eggs. One tobacco field suffered a 50-percent loss in stand. Two areas in large cornfields suffered a loss of about 65 percent, but over the entire acreage involved, the loss was not over 6 percent. Most damage occurred prior to September 15, but some corn was damaged at the end of the month. In attacking corn the larvae first defoliated crabgrass and other low vegetation, then climbed the cornstalks, fed on the leaves (frequently leaving only the midribs), and ate the silk prior to fertilization.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Virginia. H. G. Walker (September 25): A very heavy outbreak of the fall armyworm occurred between July 20 and August 1, when it completely destroyed nearly all of the millet and Sudan-grass fields and injured

some cornfields in the Norfolk district. From August 15 to 31 they have been present and have done considerable damage in late-planted corn.

North Carolina. C. H. Brannon (September 10): Damage to corn reported over a wide area.

Georgia. T. L. Bissell (August 28): The fall armyworm is very abundant on grass at Experiment. (September 2): The fall armyworm is ruining a large field of corn at the Experiment station. (September 10): Holes are being eaten in pimiento pepper fruit at Vaughn. (September 14): A study was made of injury by fall armyworm and corn ear worm (Heliothis obsoleta F.) in late field corn at Experiment. Of 435 ears, 426 were infested. In these ears were found 337 fall armyworms and 157 corn ear worms. It was estimated that 39.2 percent of the grain had been ruined, though the injury to the crop was greater because many ears failed to develop.

G. F. Moznette (September 15): The fall armyworm has been quite prevalent in southern Georgia in fields of cotton, kudzu, and Johnson grass, and has caused considerable damage.

Florida. J. R. Watson (September 24): A few complaints have been received of the depredations of the fall armyworm, although it is not as numerous as it has been in other years.

Tennessee. G. M. Bentley (September 3): The grassworm has been damaging corn in Cheatham and Cannon Counties. (September 14): Lima beans at Tellico Plains, Monroe County, were also damaged. Estimated loss to the bean crop was \$5,000.

Alabama. J. M. Robinson (September 25): During the first week in September the fall armyworm was reported as active on 150 acres of soybeans to be used for seed in Wilcox County.

Mississippi. C. Lyle (September 24): Fall armyworm was causing serious injury to a lawn at Meridian on August 28.

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis Hbn.)

South Carolina. F. F. Bondy (September 5): Grass worms and the soybean worm, probably A. gemmatilis, are doing damage in parts of Darlington County. (September 26): The southern grass worm and the soybean worm are doing serious damage to soybeans, and farmers are inquiring about control measures.

WHITE GRUBS (Phyllophaga spp.)

Kentucky. W. A. Price (September 25): Digging records show that white grubs have been much reduced in numbers in the vicinity of Lexington during the past 2 months.

Minnesota. A. G. Ruggles and assistants (September): White grubs are very

abundant in Winona, Freeborn, and Mower Counties in southern Minnesota, and in Crow Wing and Carlton Counties in east-central part of the State.

GREEN JUNE BEETLE (Cotinis nitida L.)

Virginia. H. G. Walker (September 25): Nearly full-grown grubs are moderately abundant in some spinach fields at Norfolk, where they have caused a small amount of damage by burrowing under and killing the young spinach.

ASIATIC GARDEN BEETLE (Autoserica castanea Arrow)

Connecticut. E. P. Felt (September 23): Grubs caused appreciable injury to snapdragon plants in a Stamford greenhouse, the soil in which the plants were growing having been brought in recently.

A WEEVIL (Naupactus leucoloma Boh.)

Florida and Alabama. J. R. Watson (September 24): A weevil new to North America, identified by L. L. Buchanan as N. leucoloma, appeared this summer in the northern part of Walton County, Fla., and adjacent areas of Alabama. According to the county agent, it did much damage to peanuts and some to cotton and other plants.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Ohio. T. H. Parks (September 26): An examination of volunteer and early sown wheat on September 21 showed few eggs present. As very few of the aestivating insects remain alive, we do not expect any serious injury this fall, even to the early sown wheat.

Indiana. C. M. Packard and associates (September 18): Dissections of western-Indiana material indicate summer survival of puparia in stubble to be from 1 to 20 percent, depending upon local conditions. Considerable pupation now in progress. The mid-August rains sprouted much volunteer wheat in the vicinity of Lafayette and caused some fly emergence. A few eggs noted September 8 on volunteer, some already hatched. In two fields seen yesterday near Delphi, much of the volunteer was already showing infestation, mainly from small to mature larvae, with a few new puparia.

Illinois. W. P. Flint (September 24): Early fall rains have caused emergence of adults and a growth of volunteer wheat. This will, on the whole, be favorable to the sowing of a commercial wheat crop, as most of the flies will be out before the normal date of seeding.

Missouri. L. Haseman (September 25): We will have considerable early seeded wheat and in most sections of the State we are finding sufficient live

flaxseeds to cause serious concern. A considerable number of the flaxseeds in central Missouri are showing parasitization and a great many others were probably destroyed by the heat.

Nebraska. M. H. Swenk (September 23): The hessian fly is at such a low ebb of population that no observations are being made of the safe-sowing date.

BLACK GRAIN STEM SAWFLY (Trachelus tabidus F.)
EUROPEAN WHEAT STEM SAWFLY (Cephus pygmaeus L.)

General. J. S. Houser, E. J. Udine, and J. S. Pinckney (August): Surveys made this summer for wheat stem sawflies showed T. tabidus more or less abundant in wheat fields over a wide territory, including most of Pennsylvania, Maryland, Delaware, Virginia, and part of eastern Ohio. The infestation was by far the heaviest in eastern Ohio, where it was alarmingly abundant in several counties. In that State infestations have advanced considerably farther westward since last year. Surveys in parts of Virginia and North Carolina showed none south of Campbell County. C. pygmaeus was present, as usual, in western New York and was increasing in eastern Pennsylvania.

CORN

CORN EAR WORM (Heliothis obsoleta F.)

Massachusetts. A. I. Bourne (September 24): The corn ear worm has been much less abundant than usual, and no complaints of severe damage have been received. A very slight amount of it was noted in early maturing corn in the vicinity of Springfield.

Connecticut. N. Turner (September 21): The second brood infested about 17 percent of the sweet corn at Mt. Carmel farm, about 6 percent less than in 1935. Small larvae are still present.

Indiana. E. V. Walter (September 18): A heavy deposition of eggs began at Lafayette about August 26 and has continued to date. Nearly every corn ear is infested with from one to six larvae. These are in all stages of maturity.

Illinois. W. P. Flint (September 24): Little infestation up to the first of September. Since that time a rather heavy flight of moths has occurred and in fields of late corn nearly 100 percent of the ears are infested.

Kentucky. W. A. Price (September 25): Corn ear worms are unusually abundant in late corn and tomatoes in the vicinities of Shelbyville, Lexington, and Elizabethtown. In several patches of late corn the leaves, tassels, and stalks are being riddled.

Iowa. H. E. Jaques (September 23): The corn ear worm is strongly contesting with the grasshoppers for first place. The drought has made their damage a serious matter.

Missouri. L. Haseman (September 25): With practically all of the corn crop being destroyed by the drought and very little forming even nubbins, the corn ear worm is less abundant than for many years. Some late green tomatoes are being injured.

Tennessee. G. M. Bentley (September 3): Corn ear worm is attacking millet and the pods of soybeans and cowpeas in Cannon County. Heavy injury to corn in bottom lands in western Tennessee. Also reported damaging sweet corn in Sevier County at least 75 percent. In some cases practically none of the corn can be used for canning.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Massachusetts. A. I. Bourne (September 24): The European corn borer has caused rather less damage than usual, particularly in the eastern part of the State where the infestation is of longer standing. This is based on the number of damaged ears, rather than on stalk infestation. There were instances of heavy infestation in market-garden areas in the Connecticut Valley.

Connecticut. N. Turner (September 21): Second-generation infestation on sweet corn at Mt. Carmel farm was about 20 percent less than last year. About 30 percent of the ears are infested. Infestation in dahlias was at least as heavy as in 1935. Untreated plants are entirely ruined.

Virginia. H. G. Walker and L. D. Anderson (September 26): The European corn borer has been found for the first time in several cornfields near the Chesapeake Bay in Norfolk and Princess Anne Counties, but none was found more than 5 miles inland.

CHINCH BUG (Blissus leucopterus Say)

Ohio. T. H. Parks (September 26): Some farmers in northern Ohio are reporting chinch bugs present in plentiful numbers on the wagons as they fill their silos. No serious damage was done to the corn.

Indiana. C. Benton (September 18): Mid-August surveys in standing corn showed the following average numbers of chinch bugs per stalk, by counties: Benton, 27; Tippecanoe, 46; Clinton, 8; and Tipton, 3. In Tippecanoe County second-brood bugs were still abundant in corn on September 17, being mainly from third instar to adult. They were also abundant on young timothy in a wheat-stubble field. Examinations of bunch grasses on September 17 showed some accumulation of adults in hibernation quarters since September 1, when practically none were present in bunch grasses.

Illinois. W. P. Flint (September 24): Chinch bug development was retarded somewhat by the extremely hot weather early in August. Development was normal during the latter part of August and first part of September. There is a heavy infestation over all the west-central part of Illinois, extending south below the latitude of St. Louis, Mo. The infestation is lighter in the eastern part of the State. Large numbers of bugs have

been flying to winter quarters since about September 10.

Missouri. L. Haseman (September 25): The carry-over of chinch bugs seems to be light, except in a few isolated localities, where farmers are reporting that they are abundant on late corn and sorghum.

Nebraska. M. H. Swenk (September 23): Chinch bugs were reported as present in greater than normal numbers in the cornfields in Richardson and Nemaha Counties from August 20 to September 20.

DESERT CORN FLEA BEETLE (Chaetocnema ectypa Horn)

California. H. J. Ryan (September 10): Three acres of popcorn out of a 5-acre field were destroyed in Los Angeles County.

ALFALFA

ALFALFA CATERPILLAR (Eurymus eurytheme Bdv.)

Tennessee. E. W. Howe (September): Alfalfa caterpillars seriously damaged sweetpotato foliage at Clarksville during the latter part of the month.

Colorado. S. C. McCampbell (September 21): We have had an abundance of the alfalfa caterpillar. In the lower Arkansas Valley during the past 30 days considerable injury has resulted to alfalfa.

California. H. C. Donohoe and C. K. Fisher (August 27): Alfalfa fields in Fresno County have been heavily infested with adults for several days. Several fields have been noted within the last 2 days containing the greatest adult infestations the writers have ever noted.

C. C. Wilson (September 4): The alfalfa caterpillar, which usually builds up to severe damaging proportions on the fourth and fifth cuttings of alfalfa, has again destroyed large acreages of hay in Sacramento County. Damage was severe on approximately 1,000 acres, causing a reduction of 1 ton per acre. The monetary loss over an area of 100 square miles was estimated to be approximately \$15,000, while hay buyers estimated 10 percent loss for the county. Bacterial wilt attacked the larvae, but conditions favoring this disease came too late to avert the damage.

F R U I T I N S E C T S

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia. O. I. Snapp (September 14): Crawlers are now beginning to set up on peach twigs in numbers at Fort Valley. There were very few crawlers on peach trees until September. The infestation usually builds up rapidly on peach trees in Georgia during this month.

C. H. Alden (September 24): A light, general infestation noted throughout the peach- and apple-growing sections around Cornelia, but few heavy infestations found.

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

Virginia. W. J. Schoene (September 24): The third-brood codling moth has been unusually large this year and has caused considerable injury in orchards where an abbreviated schedule has been followed.

Georgia. C. H. Alden (September 24): Moth emergence about over; practically none caught in the bait pots during the past 2 weeks. Larvae in apples are about full fed and those leaving are spinning up winter cases. The insect has been no more abundant this season than usual but appears to be worse, because the State has less than one-third of a normal crop of apples.

Ohio. T. H. Parks (September 26): Sixty-three commercial apple orchards, located in all parts of the State, checked for insect and disease blemishes during the latter half of September, showed an average of 6 percent of the fruits carrying stings or entrances of larvae. The orchards ranged from 69 percent worm injury to 0.01 percent. Only a few orchards have a serious problem. The percentage of insect- and disease-free fruit in these orchards averaged 89.1. Most of the orchards in the east side of the State received no spray for the second generation of worms. Many in Ottawa and Lawrence Counties received five cover sprays.

Illinois. W. P. Flint (September 24): Codling moths are still hatching and entering apples in small numbers. The infestation in southern Illinois is one of the heaviest that ever occurred in that region. Many orchards in western Illinois are also heavily infested. Apple picking is more than half over in all the important orchard sections of the State. The situation at present points to a very heavy carry-over of worms next year.

Minnesota. A. G. Ruggles and assistants (August 29): Codling moth very abundant in Freeborn County.

Missouri. L. Haseman (September 25): In southern Missouri late worms continued to enter up to the middle of the month. In central Missouri the last moths were taken in the bait traps on September 15. The carry-over of

worms in Missouri will be lighter than for many years past.

Washington. E. J. Newcomer (September 22): Cool weather early in September prevented a heavy late emergence of moths in the Yakima Valley; the high point from August 12 to 18 was the peak. There are as a consequence fewer late worms in the fruit.

RED-HUMPED CATERPILLAR (Schizura concinna S. & A.)

Mississippi. C. Lyle (September 24): A colony of worms on apple foliage was sent in from Magnolia on September 15.

APPLE LEAFHOPPERS (Cicadellidae)

Massachusetts. A. I. Bourne (September 24): The late brood of the white apple leafhopper, Typhlocyba pomaria McAtee, is not more than normally abundant; in comparatively few orchards has there been any serious spotting of the leaves or fruit.

Connecticut. P. Garman (September 22): Infestation of white apple leafhopper is from moderate to heavy in New Haven County.

Virginia. W. J. Schoene (September 24): The white apple leafhopper is generally present in apple orchards and is causing annoyance to pickers and some loss due to the specking of the fruit.

Illinois. W. P. Flint (September 24): Apple leafhoppers have been extremely abundant in nearly all commercial orchards in western and southern Illinois.

Kentucky. W. A. Price (September 25): Adult apple leafhoppers, principally Erythroneura cones maculata Gill., are present in great numbers in apple orchards in central Kentucky and have caused considerable defoliation.

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Massachusetts. A. I. Bourne (September 24): There is a very extensive bronzing of foliage in many of the larger apple orchards of the State resulting from late-season abundance of European red mite. During the latter part of the summer more red mites were present generally throughout the orchards than for many years.

PEACH

COTTON LEAF WORM (Alabama argillacea Hbn.)

Missouri. W. F. Turner (September 25): One peach grower in Scott County has a considerable planting of Henrietta peaches, which are just getting ripe. Adults of the cotton caterpillar have ruined most of the fruit by feeding on it. This grower states that he has the same experience every 3 or 4 years and that he is pulling up the entire block this year.

Hereafter, he will grow nothing that ripens after Elbertas.

PEACH BORER (Conopia exitiosa Say)

Georgia. O. I. Snapp (September 19): The peak of moth emergence occurred at Fort Valley during the first week of September, which is earlier than usual. This was expected on account of the unusually early pupation season this year. Observations during the last month indicate that infestation was heavier than that of 1935.

C. H. Alden (September 24): Peach tree borer infestation is not as heavy as in 1935 at Thomaston and Cornelia.

PEACH TWIG BORER (Anarsia lineatella Zell.)

California. D. F. Barnes (August 3): General reports indicate a rather heavy infestation in peaches in Fresno County.

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman (September 22): Infestation of oriental fruit moth is heavy in some orchards in New Haven County. Infestations in Elbertas are estimated at from 30 to 50 percent. In other localities the infestation has been light, not over 10 percent.

Ohio. T. H. Parks (September 23): This insect was much more injurious to peaches along Lake Erie than for several years. The Elberta crop was badly infested in some orchards.

Tennessee. G. M. Bentley (September 3): Fruit moth injury less on peaches than usual in western Tennessee as reported by J. C. Moser.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia. O. I. Snapp (September 10): Second-generation adults are now emerging in numbers in Elberta peach orchards at Fort Valley. There are no adults on the trees of varieties that matured fruit before the deposition of second-generation eggs. First-generation adults have not been found on peach trees during the last month.

Tennessee. G. M. Bentley (September 3): Curculio injury less on peaches this year than usual in western Tennessee (J. C. Moser).

GRAPE

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Ohio. T. H. Parks (September 23): The grape berry moth is quite serious in commercial vineyards of Columbiana County. Some growers will have from 25 to 30 percent loss of their Concord grapes.

PECAN

WALNUT CATERPILLAR (Datana integerrima G. & R.)

Georgia. G. F. Moynette (September 15): Walnut caterpillar has been unusually abundant in pecan orchards at Albany during August and September and has caused considerable damage. In some instances the foliage has been stripped from pecan trees, but more generally individual large branches have been stripped.

Mississippi. L. J. Goodgame (September 24): A few young pecan trees in Pontotoc County were being defoliated on September 19.

PECAN LEAF CASEBEARER (Acrobasis juglandis LoB.)

Georgia. G. F. Moynette (September 15): The summer cases of pecan leaf casebearer were not as abundant at Albany as for the same period last season, which would apparently indicate that in this vicinity this insect will not cause a great deal of damage next spring.

PECAN NUT CASEBEARER (Acrobasis caryae Grote)

Georgia. G. F. Moynette (September 15): The third-generation larvae are now feeding on the shucks of pecans at Albany, and are more readily found than they were last season. This indicates that more immature larvae will go into hibernation and cause a greater infestation next spring.

HICKORY SHUCK WORM (Laspeyresia caryana Fitch)

Georgia. G. F. Moynette (September 15): This insect has been quite numerous in pecan orchards during September in the vicinity of Albany, and is causing considerable damage. The shells on most varieties of pecan nuts have now hardened and the larvae instead of boring directly into the nuts are working only in the shucks.

TWIG GIRDLER (Oncideres cingulatus Say)

Georgia. S. O. Hill (September 15): This insect has been reported from Dawson as causing considerable damage in pecan orchards.

Mississippi. C. Lyle (September 24): The pecan twig girdler is moderately abundant in the vicinity of Jackson.

BLACK PECAN APHID (Melanocallis caryaefoliae Davis)

Connecticut. E. P. Felt (September 23): The characteristic discoloration of hickory leaves, the work of the small black aphid, is very prevalent on hickories in the Stamford area.

Georgia. G. F. Moynette (September): The black pecan aphid has been a troublesome pest during August and the early part of September in pecan orchards at Albany, especially those where Bordeaux mixture has been used

for disease control.' However, it is now on the decline.

Mississippi. C. Lyle (September 24): The black pecan aphid was causing medium damage on pecan at Durant, according to Inspector D. W. Grimes, and was also abundant at Meridian.

A PHYLLOXERA (Phylloxera caryaeseptem Shin.)

North Carolina. C. H. Brannon (September 12): Heavily infested pecan leaves sent in from Edgecombe County. (Det. by L. H. Weld)

CITRUS

CITRUS WHITEFLIES (Dialeurodes spp.)

Florida. J. R. Watson (September 24): The infestation of whiteflies in most of the citrus is the heaviest in many years. Many groves are pretty thoroughly blackened. The cloudy-winged whitefly (D. citrifolii Morg.) is chiefly responsible for this increase in numbers. In many sections of the Citrus Belt it has now become the dominant species where D. citri Ashm. was formerly the chief form.

Mississippi. C. Lyle and assistants (September 24): Heavy infestations of whiteflies have been observed along the coast on satsuma oranges and shrubbery. Many broad-leaved evergreens at Poplarville have been defoliated.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. J. R. Watson (September 24): Rust mites have been more troublesome than usual at this time of year, because we have had less than normal rain.

FIG

A NITIDULID (Carpophilus marginatus Er.)

HACKBERRY BUTTERFLY (Chlorippe celtis Bdv. & Lec.)

Alabama. J. M. Robinson (September 25): These two insects in association were reported on September 18 as having seriously damaged late figs in Birmingham.

TRUCK - CROP INSECTS

BLISTER BEETLES (Epicauta spp.)

Massachusetts. E. P. Felt (September 23): Margined blister beetles (E. marginata F.) were reported in abundance from Sharon.

Ohio. E. W. Mendenhall (September 1): Blister beetles (E. pennsylvanica Deg., are quite abundant on aster and gladiolus plants in central Ohio.

Tennessee. G. M. Bentley (August 26): Blister beetle, E. cinerea Forst., is damaging sweetpotato vines at Selmer in McNairy County.

Mississippi. C. Lyle (September 24): E. lemniscata F. was attacking vegetable crops in Grenada, Yalobusha, and Marshall Counties, according to Inspector N. L. Douglass. Specimens of E. marginata were received from Wesson on September 15.

STRIPED CUCUMBER BEETLE (Diabrotica vittata F.)

Minnesota. A. G. Ruggles and assistants (September): The striped cucumber beetle has been very abundant in Lac qui Parle, Renville, and Pipestone Counties. It was very abundant in Winona County also, and seemed to continue its damage long into the summer. Many of the squash blossoms never developed squash because the beetles were so numerous.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata F.)

Missouri. L. Haseman (September 25): From September 1 to about the 20th late squashes and cucumbers were more heavily infested with both spotted (D. duodecimpunctata) and striped cucumber beetles (D. vittata) than for many years past at this season. They seriously interfered with the setting of the fruits and have actually shredded a great deal of the new foliage.

Florida. F. S. Chamberlin (August): D. duodecimpunctata is causing slight injury to string beans in Gadsden County.

Illinois. W. P. Flint (September 24): Adults of the southern corn rootworm have been very abundant during the last month.

SOUTHERN GREEN STINKBUG (Nezara viridula L.)

Florida. J. R. Watson (September 24): N. viridula is scarcer than it has been in many years.

F. S. Chamberlin (August): The southern green plant bug is very abundant on field peas and other host plants in Gadsden County.

CORN EAR WORM (Heliothis obsoleta F.)

North Carolina. W. A. Thomas (August 31): The corn ear worm is particularly

destructive to lima beans at Chadburn. The damage is caused by the larvae boring into the nearly mature pods and destroying the seed.

Mississippi. C. Lylo (September 24): Serious injury to fall tomatoes was reported at Poplarville by J. E. Lee and at Jackson by Jack Milton.

Washington. R. S. Lehman (September 28): The corn ear worm, which did extensive damage to sweet corn at Walla Walla earlier in the season, has been very destructive to tomatoes. Fields of tomatoes nearest to sweet corn have shown greater damage than others. One field was noted that had no marketable tomatoes.

California. A. E. Michelbacher (September 24): An examination of the tomato fields in Sacramento and Yolo Counties on August 30 and 31 showed only a little fruit infested. With a single exception, the infestation was less than 4 percent. In one field at Sacramento 6 percent of the ripe fruit was infested, while about 20 percent of the small green fruit contained worms. In the tomato-growing district about Brentwood the infestation on tomatoes has remained light. There is some indication that the infestation is going to build up. In several fields examined from 4 to 6 percent of the small green fruit was infested. The only area where the corn ear worm has been very destructive is in the San Francisco Bay district. Some fields have had as much as 20 percent of the fruit damaged, but the general average is much below this, usually being less than 10 percent.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Alabama. J. M. Robinson (September 25): The Colorado potato beetle is moderately abundant in central Alabama.

Mississippi. J. Milton (September 24): The Colorado potato beetle is present in nearly all fields of fall potatoes around Jackson.

Minnesota. A. G. Ruggles and assistants (September): The Colorado potato beetle is very abundant in Itasca, Crow Wing, and Freeborn Counties.

Utah. G. F. Knowlton (September 26): The Colorado potato beetle has not extended its range in southern Weber and in northern Utah Counties this season.

POTATO TUBER WORM (Gnorimoschema operculella Zell.)

California. A. E. Michelbacher (September 24): In the San Francisco Bay district there is a light infestation of larvae on tomatoes.

Mexico. T. R. Stephens (September 8): Thirteen larvae collected from potatoes in the Market House at Matamoros were determined by C. Heinrich as G. operculella.

TOMATO PINWORM (Gnorimoschema lycopersicella Busck)

California. J. C. Elmore (August 24): The tomato pinworm was quite numerous on young tomato plants in a greenhouse in Modesto. Young plants were seriously damaged by leaf folding and stem boring. The insects were first noticed in December 1935 on tomatoes in the same house. Plants from this house which were set in a field early in the spring are now heavily infested. Seven percent of the ripe fruit was infested. (September 18): The tomato pinworm has built up to injurious numbers in the Stanton district of Orange County and the Artesia district of Los Angeles County. Infestations range from 25 to 60 percent of the ripe fruit.

TOMATO WORMS (Protoparce spp.)

Ohio. E. W. Mendenhall (September 15): The tomato worm (P. quinquemaculata Haw.) is quite numerous in tomato fields in central Ohio.

California. J. C. Elmore (August 26): P. quinquemaculata and P. sexta Johan. were quite numerous in tomato fields in Stanislaus County. In many fields every plant was damaged and many of them were from one-half to three-fourths defoliated.

POTATO LEAFHOPPERS (Empoasca spp.)

Minnesota. A. G. Ruggles and assistants (September 17): The potato leafhopper (E. fabae Harr.) is very abundant in Winona, Crow Wing, Lake, and Chippewa Counties.

Utah. G. F. Knowlton (September 28): The leafhopper, E. filamenta DeLong, has caused from moderate to severe injury to potatoes in parts of the State.

TOMATO STILTBUG (Jalysus spinosus Say)

North Carolina. W. A. Thomas and F. A. Wright (August 18): Most of the fruit buds formed on tomatoes during this period of the year at Chadbourn dropped off, even before the blossoms opened. It was found that large numbers of this insect were present in the tomato fields and, unless disturbed, were nearly always resting on the bloom or fruit bud.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Virginia. H. G. Walker (September 25): At Norfolk the Mexican bean beetle has not been as abundant this year as last.

Georgia. T. L. Bissell (June 1): The bean beetle is plentiful and injurious at Richland, in Stewart County, and at Blairsville, in Union County. It has done little damage in the Experiment district. A grower at Richland reports damage last fall.

C. H. Alden (September 24): Mexican bean beetle very bad on late snap beans in Habersham and Rabun Counties.

Alabama. J. M. Robinson (September 25): The Mexican bean beetle increased in numbers during the latter part of August and in September in central and northern Alabama, necessitating control measures.

Mississippi. C. Lyle (September 24): Severe injury was reported from Laurel on September 11. L. J. Goodgame reported on September 15 that the bean beetle was damaging both late and early beans in Monroe and Union Counties.

Utah. G. F. Knowlton (August 19): Mexican bean beetles have seriously damaged beans at Moab.

LIMA BEAN VINE BORER (Monoptilota pergratialis Hulst)

Maryland. E. N. Cory (September 4): The lima bean stalk borer has been reported from Hurlock.

North Carolina. W. A. Thomas (September 1): Lima bean vine borer unusually abundant in the Chadbourn area this season. Many of the vines have from 1 to 10 galls caused by the larvae. In a few instances they have caused the death of the vines.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

New Jersey. T. L. Guyton (September 28): Maggots were numerous on string beans at Bound Brook on August 28. Adults were noted on September 9.

BEAN THRIPS (Heliothrips fasciata Perg.)

California. H. J. Ryan (September 28): Beans in the San Fernando Valley are heavily infested by the bean thrips. As the beans are being harvested, it would not be profitable to treat them.

CABBAGE

IMPORTED CABBAGE WORM (Ascia rapae L.)

Connecticut. N. Turner (September 21): The cabbage worm has been very scarce in southern Connecticut all season.

Virginia. H. G. Walker (September 25): Imported cabbage worms are very scarce in the Norfolk area.

Ohio. N. F. Howard (September 18): Cabbage worms are reported to be numerous and injurious to cabbage at South Point.

B. J. Landis (September 4): The imported cabbage worm was numerous at Athens on September 4 on broccoli and cauliflower.

Minnesota. A. G. Ruggles and assistants (September): The imported cabbage worm is very abundant in Freeborn, Winona, Crow Wing, and Benton Counties.

SOUTHERN CABBAGE WORM (Ascia protodice Bdv. & Lec.)

Georgia. T. L. Bissell (September 9): Butterflies were found ovipositing on collard plants just out of the ground at Experiment.

Ohio. B. J. Landis (September 15): Larvae of the southern cabbage butterfly were more numerous than usual at Columbus. On September 15, 80 worms were collected from 100 feet of row of Chinese cabbage. A few larvae were found on rape and turnips.

CABBAGE LOOPER (Autographa brassicae Riley)

Connecticut. N. Turner (September 21): Cabbage looper slightly less abundant than usual this year in southern Connecticut.

Virginia. H. G. Walker (September 25): The cabbage looper was becoming rather abundant in many cabbage and collard fields in the Norfolk area; however, since the hurricane and the 4-inch rain accompanying it on September 18, many of the loopers died from a bacterial disease.

Ohio. B. J. Landis (September): Cabbage loopers were abundant on turnips on September 16 at Columbus and on Chinese cabbage at Athens on September 4. At the latter place they were damaging the outer leaves.

Kentucky. W. A. Price (September 25): Cabbage loopers common on cabbage and turnips in the Bluegrass area.

Mississippi. C. Lyle and assistants (September 24): A. brassicae was collected on soybeans at Burnell on September 16 and on turnips and mustard in Grenada and Yalobusha Counties. Serious damage to turnips was observed in Union County.

DIAMONDBACK MOTH (Plutella maculipennis Curt.)

Virginia. H. G. Walker (September 25): Larvae are becoming moderately abundant in cabbage and collard fields around Norfolk.

Ohio. T. H. Parks (September 26): Injury from the larvae is now heavy in some northern counties.

HAWAIIAN BEET WEBWORM (Hymenia fascialis Gram.)

Virginia. H. G. Walker (September 25): The Hawaiian beet webworm was very abundant at Norfolk and did considerable damage to young kale during the latter part of August and the early part of September.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia. H. G. Walker (September 25): The harlequin bug has been very scarce this year at Norfolk.

Mississippi. C. Lyle (September 24): Plant Board inspectors reported harlequin bugs rather general throughout the State.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

Tennessee. G. M. Bentley (September 17): Cabbage maggot has been reported as working on turnips at Erwin in Unicoi County.

California. J. C. Elmore (August 29): The cabbage maggot, which is attacking cauliflower near Temple City, Los Angeles County, has damaged from 2 to 20 percent of the plants. Of 700 plants counted in a field 52, or 7.4 percent, were infested.

FALSE CHINCH BUG (Nysius ericae Schill.)

North Carolina. W. A. Thomas (August 29): The false chinch bug was observed to be very abundant on cruciferous crops on the experimental plots at Chadbourn; however, the injury was almost negligible.

STRIPED FLEA BEETLE (Phyllotreta vittata F.)

North Carolina. W. A. Thomas (August 15): The striped flea beetle has been very injurious to broccoli and other cruciferous crops in the Chadbourn area during the past few weeks. Most of the foliage has been riddled with small holes and the plant growth considerably checked.

MELONS

MELON APHID (Aphis gossypii Glov.)

Missouri. L. Haseman (September 25): At Columbia late melon and cucumber vines are being killed by the melon aphid.

MELON WORMS (Diaphania spp.)

North Carolina. W. A. Thomas (September 1): D. hyalinata L. and D. nitidalis Stoll are extremely abundant on late squash and pumpkins in the Chadbourn area. Young fruit is being destroyed as fast as it forms and the tips of the vines are being killed.

SQUASH

SQUASH BUG (Anasa tristis Deg.)

Missouri. L. Haseman (September 25): The usual heavy fall infestation of this common pest of cucurbits has occurred throughout much of the State.

Tennessee. G. M. Bentley (August 4): Squash bugs found on pumpkin and squash vines at Greenfield, Weakley County. Vines destroyed 100 percent. Reported by E. P. Douberry.

SQUASH BEETLE (Epilachna borealis F.)

North Carolina. W. A. Thomas (September 2): Larvae are defoliating late squash and pumpkins in the Chadbourn district. Apparently the insect is much more abundant this season than it was last.

TURNIP

TURNIP APHID (Rhopalosiphum pseudobrassicae Davis)

Mississippi. L. J. Goodgame (September 24): Plant lice, R. pseudobrassicae, were destroying turnips in Union County on September 21.

CABBAGE WEBWORM (Hellula undalis F.)

Georgia. T. L. Bissell (September 9): Small turnip plants at Experiment are being webbed by Hellula caterpillars, which are not more than one-third grown.

EGGPLANT

EGGPLANT LACEBUG (Gargaphia solanii Heid.)

Mississippi. C. Lyle (September 24): The eggplant lacebug was causing serious damage to eggplants at State College on September 20. An infestation at Durant was reported by Inspector D. W. Grimes.

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Virginia. H. G. Walker (September 25): Onion thrips were moderately abundant on young kale, collards, and cabbage from the last of August to the middle of September in the Norfolk district.

California. A. F. Howland (August 28): Over 30 acres of onions in the Lompoc Valley were badly infested. The bulbs were greatly reduced in size. Only about 1 bulb in 12 will reach first-grade size. Few tops in the field showed any green foliage.

STRAWBERRY

LESSER CORNSTALK BORER (Elasmopalpus lignosellus Zell.)

North Carolina. W. A. Thomas (September 8): On examining the experimental plots of strawberries at the Willard test farm it was observed that the lesser cornstalk borer was causing unusual damage to the crowns of older plants and the young runner plants. In many instances the entire crown

had been killed and supplementary buds were developing around the base of the plants. Many of the runner plants were killed outright before having an opportunity to take root. This crop followed a crop of soybeans of last season.

PEPPER

LEAF-FOOTED BUG (*Leptoglossus phyllopus* L.)

Georgia. T. L. Bissell (September 10): Nymphs are found clustered on pimiento pepper fruit at Vaughn.

SWEETPOTATO

SWEETPOTATO WEEVIL (*Cylas formicarius* F.)

Mississippi. G. L. Bond (September 24): At Moss Point a much lighter infestation of the sweetpotato weevil this season, due largely to the extremely cold weather killing all potatoes and vines in the fields last winter and preventing volunteers.

Oklahoma. F. A. Fenton (September 9): Specimens collected at Fairview, Major County, were identified by L. L. Buchanan.

SUGAR BEETS

BEET LEAFHOPPER (*Eutettix tenellus* Bak.)

Colorado. O. A. Hills (September 22): The sugar beet crop in the beet-growing sections of the western slope of Colorado is considerably above average this year. Large, vigorous beets are found generally in the Grand Valley, Delta-Montrose, and Rifle districts. This favorable condition of sugar beets is partly due to the low populations of beet leafhopper, which dispersed into these districts in April and May.

Utah. G. F. Knowlton (September 26): Moderate damage to beets has occurred in places near the local breeding areas.

YELLOW WOOLLY BEAR (*Diacrisia virginica* F.)

Colorado. S. C. McCampbell (September 21): The yellow bear caterpillar has been unusually abundant in both northern and eastern Colorado, especially in the Rocky Ford district where it caused considerable injury to sugar beets.

TOBACCO

TOBACCO WORMS (*Protoparce* spp.)

Maryland. E. N. Cory (September 25): Hornworms are doing considerable damage to tobacco and tomatoes generally.

Florida. F. S. Chamberlin (August): Hornworms, P. sexta Johan., are found in Gadsden County in occasional fields of sun-grown tobacco in which the stalks are still standing.

Tennessee. G. M. Bentley (September 3): The tobacco worms, P. sexta and P. quinquemaculata Haw., have done considerable damage in Henry and Weakley Counties.

MUSHROOMS

MITES (Tarsonemus spp.)

Maryland. F. F. Smith (September 30): In the spring of 1936 T. floricolus C. & F. was found in spawn from the mushroom beds at Beltsville. The mites occurred rarely, and did no apparent damage. Three generations were reared in the laboratory. (Det. by H. E. Ewing)

Pennsylvania. A. C. Davis (September 29): A mite, Tarsonemus sp., is doing a great deal of damage in a commercial mushroom house near Toughkenamon, Chester County. The mites are so numerous that they look like brown powder on the caps of the mushrooms. They chew the feeder roots, causing the mushrooms to die, and also eat holes in the caps. A house near Oxford, Chester County, has been reported to be similarly infested.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

North Carolina. C. H. Brannon (September 25): Many sections of the State show heavy weevil infestation; other sections are lightly infested.

South Carolina. F. F. Bondy (September 5): The late cotton at Florence that has not been poisoned is now overrun with weevils. The poisoned cotton is still in full bloom. (September 26): Cotton is taking a second growth and weevils are increasing, but the number in the fields is still below normal.

Georgia. T. L. Bissell (September 9): The boll weevil is numerous on cotton at Experiment.

P. M. Gilmer (September 5): At Tifton the infestation has continued to increase slowly in Upland cotton. In Sea Island cotton practically 100 percent of the squares are now attacked in the unpoisoned fields. Where squaring is still in progress a majority of the squares are now attacked and injury in unpoisoned fields is becoming rather serious. It is doubtful whether many of the unopened bolls will mature. (September 26): Breeding has apparently almost ceased. Fall movement seems to be well under way.

Tennessee. G. M. Bentley (September 3): J. C. Meser reports that he has not heard of or seen any boll weevil in Tennessee this year.

Alabama. J. M. Robinson (September 25): The boll weevil infestation at Auburn did not become sufficiently high to require dusting the cotton. In southern Alabama, particularly in the southwestern part, some dusting was necessary.

Mississippi. C. Lyle (September 24): The boll weevil infestation in the State is very light. In some sections in the central part of the State the weevils were numerous enough to puncture practically all of the late squares, but this condition was not general and practically no damage has been done.

E. W. Dunnam (September 5): In Washington County a few weevils can be found in green spots where there is some fruit available, but the population is almost negligible away from the wooded areas. Migration has been very light.

Louisiana. R. C. Gaines (September 26): During the past 4 weeks there has been a scarcity of squares and bolls at Tallulah for the late breeding of the boll weevil, owing to the stripping caused by the leaf worm (Alabama argillacea Hbn.); however, some cotton that was stripped some time ago is now taking on second growth, which may afford a considerable number of squares for late breeding.

Oklahoma. C. F. Stiles (September 25): Boll weevils have done less damage to cotton this year than at any time since they became generally established in Oklahoma. One has to search carefully in the fields in the east side of the State, where they are usually quite numerous, to find adult weevils.

Texas. R. W. Moreland (September 12): The weevil infestation record in late cotton for the second brood at College Station is as follows: 3,600 squares examined in three experiments; the check plots ranged from 13.3 to 18.3 percent, with an average of 16.7 percent; the treated plots ranged from 0.3 to 13.3 percent, with an average of 4.2 percent; the treated plot, with 13.3 percent infestation, had received only two applications of poison.

K. P. Ewing (September 5): At Port Lavaca weevils continue to damage many fields. (September 12): There was a wide-spread migration of boll weevils during this week. Observation of cotton fields in Calhoun and Jackson Counties indicates that practically 100 percent of all squares and bolls are being damaged, and even large bolls are being punctured. The small late crop that was anticipated a few weeks ago is being reduced.

Mexico. C. S. Rude (September 5): At Tlahualilo the boll weevil infestation in new squares is very heavy and the top crop is being damaged considerably. (September 22): The crop from the Don Martin project is ginning out about 50 percent as much as it has for the past 2 years, notwithstanding the increased acreage this year. The reduction is accounted for by failure to control the boll weevil.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Connecticut. M. P. Zappe (September 23): Flight of moths all over lights and on buildings in the city of Torrington. Some had found their way into stores.

North Carolina. C. H. Brannon (September 15): Heavy infestations in Nash, Iredell, and Mecklenburg Counties reported. The list is growing every day. Most of it is on very late cotton, making the infestation very serious. (September 18): Leaf worms are now reported from almost all cotton sections of the State. We have a great deal of late cotton, which will no doubt be seriously damaged. (September 25): Late cotton in all parts of the State is being attacked.

South Carolina. F. F. Bondy (September 5): At Florence cotton leaf worms are increasing and are beginning to defoliate fields of young cotton. (September 19): Increasing very slowly. Parasites apparently have them in check and no fields have been defoliated.

Georgia. T. L. Bissell (August 31): Caterpillars abundant on cotton at Experiment Station. It was reported to me today that worms were seen feeding at Cedartown on August 14. (September 9): The cotton leaf worm is doing considerable damage because, on account of drought in the early summer, cotton is late.

T. O'Neill (September 24): A flight of moths began about September 16 and they are still present, causing much nuisance in tall buildings which are lighted at night. A 50-percent loss in efficiency is reported of workers at machines or instruments that require close and constant attention. One report of damage to ripe figs.

P. M. Gilmer (August 29): At Tifton cotton leaf worms are beginning to appear in considerable numbers, especially in Sea Island cotton. There has been no stripping. (September 26): Leaf worm is present in nearly all fields but not in exceptional numbers. There is considerable ragging in many fields and occasionally some stripping.

O. I. Snapp (August 28): The cotton leaf worm is very abundant in cotton fields at Montezuma, Marshallville, and Fort Valley. This insect damaged late cotton that was blooming the latter part of August.

G. F. Moznotte (September 15): This insect has been unusually abundant in cotton fields in south Georgia and has caused a great deal of damage, especially in fields where the cotton was considerably set back by the drought earlier in the season, and where a large percentage of the bolls have not yet matured.

W. F. Turner (September 25): In the area below Macon the cotton was late this year. Growers had excellent prospects 3 weeks ago. They report many fields in which a considerable proportion of the bolls were only half-grown have been stripped, and they look for a material reduction in crop.

Alabama. J. M. Robinson (September 25): The cotton leaf worm appeared generally over the State throughout the latter half of August and September. The cotton was sufficiently advanced in southern and central Alabama that very little damage was done to it. In northern Alabama, however, where the cotton was late, considerable damage was done and a lot of dusting was necessary to hold this pest in check.

Mississippi. C. Lyle (September 24): The cotton leaf worm is generally distributed over Mississippi, but the amount of damage has been very light on account of the early maturity of the cotton.

E. W. Dunnam (September 5): The cotton leaf worm is increasing in many fields in Washington County but, as the crop is mature, the farmers are not poisoning. (September 19): About 50 percent of the cotton has been stripped and more stripping is being done. The moths are just beginning to emerge from the last generation.

Louisiana. R. C. Gaines (September 5): At Tallulah considerable stripping has occurred during the past week but planters have discontinued poisoning. (September 26): Leaf worms continue to strip cotton.

Missouri. W. F. Turner (September 25): Stripping cotton in Scott, Stoddard, and Pemiscot Counties. In many fields the plants have been entirely stripped, with much of the crop in half-grown bolls.

Arkansas. W. F. Turner (September 25): Stripping cotton in Mississippi and Crittenden Counties, Arkansas.

Oklahoma. C. F. Stiles (September 25): Cotton leaf worm present throughout practically the entire State in very limited numbers.

Texas. R. W. Moreland (September 5-19): Where no poison has been used the leaf worms are stripping the cotton plants at College Station.

K. P. Ewing (September 12): There was an increase in infestation this week which resulted in many farms in Calhoun County being poisoned again.

A. J. Chapman (September 5): At Presidio and over the Rio Grande Valley leaf worms are now generally distributed. Owing to recent rains, it was necessary for the farmers to apply poisons again. (September 19): Although light spotted infestations occur throughout the valley, the farmers have discontinued poisoning.

Arizona. T. P. Cassidy (September 5): Cotton leaf worms continue to rag cotton on the experimental farm at Tucson, approximately one-fourth of the foliage on the plants having been eaten. A general infestation is present in all of the commercial cotton area in the vicinity of Tucson. All stages of worms are present in the fields. Only about 20 acres have been completely stripped. (September 10): Approximately 10 acres of cotton at Buckeye were found to be lightly infested. While several reports have been received, this is the first authentic record in the Salt

River Valley this year. Commercial damage is not anticipated.

Mexico. C. S. Rude (September 1): The cotton leaf worm appeared in large numbers in many places in the Laguna during the week. (September 8): Cotton is being defoliated. (September 15): The infestation is widespread over the entire Laguna district and reports of it have been received from Las Delicias, Chihuahua.

BOLLWORM (Heliothis obsoleta F.)

South Carolina. F. F. Bondy (September 26): At Florence the bollworm is doing considerable damage in fields of late cotton.

Georgia. P. M. Gilmer (September 19): At Tifton little injury has been noted; practically no bollworms present.

Mississippi. C. Lyle (September 24): Severe damage was reported from Sandy Hook on August 28 and from Monticello on September 1.

Louisiana. R. C. Gaines (September 5): At Tallulah some bollworms can be found in practically all fields, poisoned and unpoisoned.

Texas. K. P. Ewing (September 12): At Port Lavaca, the bollworm can still be found doing considerable damage in some fields, although most of the worms have matured.

R. W. Moreland (August 29): At Bryan, in examining 1,480 cotton terminals, 183 eggs were found, or an average of 13 eggs per 100 terminals.

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. F. S. Puckett (August 17): Gin-trash inspections have gone forward very rapidly in the lower Rio Grande Valley of Texas. The first pink bollworm specimen was found at Brownsville on August 11, and by the end of the week 3 additional ones had been found. At San Benito the first specimen was found on August 12, and by the end of the week a total of 15 had been collected. At Rio Grande City one specimen was found on August 15. This makes a total of 20 specimens found in the valley during the week.

A. J. Chapman (September 5): On most of the farms in the vicinity of Presidio an irrigation is being applied immediately after the first picking. This practice will, of course, tend to keep the cotton fruiting and to build up a heavy pink bollworm infestation. Boll infestation records were made in 15 fields. The average infestation in these fields was 64.60 percent, ranging from 11 to 100 percent. Infestation in 9 of the 15 fields last year was 77.33 percent, as compared to 78.56 percent this year. (September 12): Boll infestation counts were made in 12 fields, which averaged 59.4 percent ranging from 10 to 100 percent. The average infestation in the same fields last year was 36.6 percent and ranged from 7 to 94 percent. (September 19): The infestation counts made

in 20 fields ranged from 54 to 100 percent, or an average of 90.95 percent. The number of bolls per plant ranged from 1.5 to 14.4, or an average of 6.1. The infestation in 12 of these fields last year was 81.92 percent, as compared to 94.75 percent this year, with the average for the number of bolls per plant 6.1, as compared to 5.6. (September 26): Boll infestation counts were made in 10 fields during the week, the average being 90.60 percent, with an average of 5.2 bolls per plant. Last year the average infestation in these fields was 52.40 percent, with an average of 7.4 bolls per plant.

Mexico. F. S. Puckett (August 17): On the Mexican side of the river, Mr. West has continued to find large numbers of specimens at Matamoros. By the end of the week a total of about 294 had been collected. At Reynosa, about 60 miles up the river from Matamoros, 8 specimens have been collected. Gin-trash inspection is also being done in Mexico at Sabinas Hidalgo, and the Don Martin project, where results have been negative to date.

C. S. Rude (September 1): The pink bollworm infestation continues to increase and is general over the whole Laguna district. (September 8): The infestation is approximately 100 percent, with from 18 to 20 worms per boll in many places. The late crop will be seriously damaged.

COTTON LEAF PERFORATOR (Bucculatrix thurberiella Busck)

Arizona. C. D. Lebert (September 15): The cotton leaf perforator has been observed in several fields of long-staple cotton, and severe foliage injury was noted. Dusting was recommended, as this cotton has about 5 weeks yet to "make."

FOREST AND SHADE-TREE INSECTS

FALL WEBWORM (Hyphantria cunea Drury)

New England and New York. J. V. Schaffner, Jr. (September 21): The fall webworm throughout New England and eastern New York is, in general, rather scarce. In a few localities in northeastern Connecticut, Rhode Island, and southeastern Massachusetts, the webs are common, with occasional isolated areas where they are rather abundant, particularly on wild cherry and old apple trees.

Massachusetts. A. I. Bourne (September 24): On the whole the fall webworm has been less abundant than usual, particularly in the eastern part of the State, where the heaviest infestations normally occur.

Connecticut. W. E. Britton (September 22): Nests are exceedingly scarce throughout the State, as compared with other seasons.

Georgia. G. F. Moznette (September 15): Fall webworm has not been so abundant on pecan at Albany as in former years.

Mississippi. C. Lyle (September 24): A complaint of the fall webworm on pecan

was received from Grenada on August 26. State Plant Board inspectors report that the infestation over the entire State is very light. No defoliation has occurred.

CHAIN-SPOTTED GEOMETER (Cingilia catenaria Drury)

Connecticut. J. C. Schread (September 20): Countless numbers of moths on the west side of Derby, flying around lights.

TWO-LINED CHESTNUT BORER (Agilus bilineatus Web.)

New York. E. P. Felt (September 23): The work of the two-lined chestnut borer continues to be serious in various areas on the northern shore of Long Island, especially in the vicinity of St. James.

BEECH

BEECH SCALE (Cryptococcus fagi Baer.)

Maine and Massachusetts. J. V. Schaffner, Jr. (September 21): R. C. Brown reports a general increase in the infestations in Maine and eastern Massachusetts. In several localities the infestations are heavy.

BIRCH

BIRCH SKELETONIZER (Bucculatrix canadensisella Chamb.)

New York. R. E. Horsey (September 24): One large tree of canoe birch at Rochester has about every leaf more or less spotted with the work of the birch skeletonizer. Larvae and the "false or moulting cocoons" can be found on this date. Only a few were on red birches that were badly infested in 1922, when they were found on 12 different species of birch.

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

Ohio. E. W. Mendenhall (September 5): Oyster-shell scales are very thick on the bark of birch trees in a nursery at New Moorfield.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Connecticut. W. E. Britton (September 22): Little damage has occurred in Connecticut this season, but adults have been received from Bridgeport, Manchester, and Somers.

Ohio. T. H. Parks (September 23): Elm leaf beetles have crawled into houses in some sections of Columbus.

ELM BUD MIDGE (Phytophaga ulmi Beautn.)

New York. E. P. Felt (September 23): The elm bud midge was reported as a serious pest in elm seedlings at Yonkers.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

Ohio. N. F. Howard (September 21): This woolly aphid is so abundant on stinkgrass (Eragrostis cilianensis) that the clumps are white and very noticeable.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Ohio. E. W. Mendenhall (September 5): The European elm scale is found in elm tree stock in the nurseries.

OAK

TWIG PRUNER (Hypermallus villosus F.)

Massachusetts. A. I. Bourne (September 24): The oak twig pruner has been unusually abundant during the past summer over practically the entire State. Nearly all the oaks along the roadsides and in the woodlands show more or less infestation, and many of them are beginning to show serious effects from the infestations of the last two or three seasons.

CARPENTER WORM (Prionoxystus robiniae Peck)

Connecticut. E. P. Felt (September 23): Carpenter worms were found in numbers in a white oak at Old Lyme.

CYNIPID GALLS (Cynipidae)

Nebraska. M. H. Swenk (September 23): Specimens of oak leaves heavily infested with the galls of Amphibolips racemaria Ashm. and Biorhiza forticornis Walsh were sent in from Knox County on September 10.

OAK PILL GALL (Cincticornia pilulae Walsh)

Pennsylvania. E. P. Felt (September 23): The oak pill gall is somewhat common in the Philadelphia district, probably more important because of its disfiguring the foliage than on account of actual injury.

PINE

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Connecticut. M. P. Zappe (September): This insect appears to be more abundant on pines, principally mugho, in nurseries over the entire State than usual.

New York. R. E. Horsey (September 20): A large amount of newly set pine needle scale was found on Austrian pine at Rochester on September 20.

Utah. G. F. Knowlton (September 27): The pine needle scale has caused considerable injury to ornamental, and in some places to forest pines and spruces, during the summer.

A PYRALID (Tetralopha robustella Zell.)

Connecticut. W. E. Britton (September 22): This moth lays eggs on various species of pine. The larvae form balls of frass, in which they live and feed upon the leaves. Recently reported from Branford, Clinton, and Deep River.

Maryland. E. N. Cory (September 24): T. robustella was reported as attacking loblolly pine at Glymont.

A WEEVIL (Hylobius radicis Buchanan)

Connecticut. G. H. Plumb (September 22): On May 5 a larva of H. radicis was taken from the same tree base out of which Pissodes approximatus Hopk. later emerged. The larvae were about 15 mm in length, and several trees were completely girdled, some already dead and others dying. Two larvae received from Sea Cliff, Long Island, on August 28 from Scotch pine, and identified by Adam Boving as H. radicis proved identical with the specimens taken at Old Lyme. These larvae were burrowing in the base of the trunk, between the ground level and the roots.

PLANETREE

SYCAMORE LACEBUGS(Corythucha spp.)

Alabama. J. M. Robinson (September 25): The lacebug was reported as defoliating sycamores at Jasper on August 20.

California. C. S. Morley (September 1): Native sycamore trees in Kern County were severely injured by attacks of the lacewing tingid. This insect has been observed feeding upon the plane sycamore trees for the first time this season.

POPLAR

A CERAMBYCID (Oberea schaumii Lec.)

Nebraska. M. H. Swenk (September 23): From Grant County on September 7 there came specimens of cottonwood twigs showing infestation.

SPRUCE

EASTERN SPRUCE BEETLE (Dendroctonus piceaperda Hopk.)

Vermont. J. V. Schaffner, Jr. (August 31): A serious outbreak of the eastern spruce barkbeetle occurs in the Green Mountain National Forest in an area between the Middlebury and Brandon Gaps. Over 90 percent of the merchantable spruce on an area of about 500 acres is now dead and the infestation is spreading to the adjoining Battell Memorial Park.

EUROPEAN SPRUCE SAWFLY (Diprion polytomum Htg.)

New England and New York. H. J. MacAloney (September 24): No noticeable

increase in the infestation in northern New England and northern New York; however, the State Forest Service of Maine reports some medium infestations in the northwestern part of that State. Although generations in southern Connecticut overlap considerably, data collected indicate at least three generations there.

WILLOW

A WEEVIL (Orchestes rufipes Lec.)

Massachusetts. E. P. Felt (September 23): The willow flea weevil was reported doing serious injury in Stockbridge.

Pennsylvania. E. P. Felt (September 23): The willow flea weevil was reported in moderate numbers in the Philadelphia area.

CURRENT STEM GIRDLER (Janus integer Nort.)

New York. R. E. Hersey (September): Several larvae of the willow shoot sawfly were found in strong shoots of the bluestem willow (Salix irrorata) and the golden willow (Salix vitellina) on September 11. Especially noticeable in sprout growth at the base of the golden willows. These are in an ornamental planting at Rochester.

I N S E C T S A F F E C T I N G G R E E N H O U S E

A N D O R N A M E N T A L P L A N T S

A WASP (Scolia dubia Say)

North Carolina. C. H. Brannon (September 1): This species is more abundant than at any time during the past 10 years.

SOD WEBWORMS (Crambus spp.)

Missouri. L. Haseman (September 25): Throughout the State there is a deluge of several small species of crambid moths which are attracting considerable attention.

A LACEBUG (Corythucha cydoniae Fitch)

Georgia. J. A. Berley (September 15): *Pyracanthas* and other ornamentals are heavily infested and injured by this lacebug.

ALDER

A FLEA BEETLE (Altica ambiens alni Harr.)

New York. E. A. Back (September): A flea beetle was noted completely skeletonizing the alder bushes along the roadside at several points between Plattsburg and Lake Placid. The second week of August the alder swarms

appeared brown. Larvae were so mature that those placed in pill boxes matured as adults without further feeding. (Det. by H. S. Barber.)

AZALEA

AZALEA LACEBUG (Stephanitis pyrioides Scott)

Mississippi. C. Lyle (September 24): The azalea lacebug was found on azaleas at Bucatunna on September 16 by Inspector M. L. Grimes. This is believed to be the first record of this insect in Mississippi. (This is the first report from Mississippi received by the Insect Pest Survey.)

BOXWOOD

A MITE (Neotetranychus buxi Garman)

Connecticut. W. E. Britten (September 22): This mite has now been recognized from two separate localities in Connecticut--Old Lyme and Saugatuck.

CEDAR

DEODAR WEEVIL (Pissodes nemorensis Germ.)

Alabama. J. M. Robinson (September 25): The deodar cedar weevil was reported as attacking deodars at Atmore on August 19.

CYPRESS

A TWIG BORER (Phloeosinus cristatus Lec.)

California. D. F. Barnes (September 16): Several instances of attack on ornamental cypress have been reported locally this fall around Fresno. In at least one instance it has been necessary to remove trees on account of the damage.

DAHLIA

SUNFLOWER WEEVIL (Rhodobaenus tredecimpunctatus Ill.)

Virginia. H. G. Walker (September 25): Larvae were reported as seriously injuring dahlias during July and August in a flower garden in Norfolk.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

Virginia. H. G. Walker (September 26): The euonymus scale continues to be rather abundant and destructive to euonymus in Norfolk.

Mississippi. C. Lyle (September 24): Injury to euonymus was reported on August 28 from Aberdeen, and Inspector Jack Milton observed severe infestations in Canton during the month.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips simplex Merison)

Ohio. E. W. Mendenhall (September 1): Gladiolus thrips are quite bad at some of the plantations in Clark County.

Utah. G. F. Knowlton (September 20): Thrips have caused serious injury to gladiolus in several gardens at Logan during the current season.

LILAC

LILAC BORER (Podosesia syringae Harr.)

New York. R. E. Horsey (September): Considerable injury to lilacs noted during the month at Rochester.

Ohio. E. W. Mendenhall (September 6): Lilac borers are very bad in lilac bushes on private property in Columbus and in central Ohio.

PALM

ROYAL PALM BUG (Xylastodoris luteolus Barber)

Florida. J. R. Watson (September 24): The palm weevil has been doing considerable damage in several sections of the lower part of the East Coast.

PHLOX

PHLOX BUG (Lopidea davisi Knight)

Maryland. G. S. Langford (September 18): The phlox bug has been reported on phlox generally.

I N S E C T S A T T A C K I N G M A N A N D

D O M E S T I C A N I M A L S

MAN

MOSQUITOES (Culicinae)

Maryland. E. N. Cory (September 18): Culex pipiens L. and Aedes sollicitans Walk. were reported as very annoying in a factory in the vicinity of Baltimore. A. sollicitans is very abundant in unditched marsh lands along the coast, particularly in Worcester County.

Missouri. L. Haseman (September 25): Since fall rains began there has been a rather severe outbreak of several species of mosquitoes throughout the State. Special complaints against them have occurred in the St. Louis district.

Tennessee. E. W. Howe (September): Culicid mosquitoes are very common at Clarksville; anophelines less common, but abundant.

BAT BEDBUG (Cimex pilosellus Horv.)

Delaware. P. L. Rice (September 29): An attic at Smyrna infested with bats was reported as being overrun with bat bugs. The bugs were said to be biting the people in the house and causing severe annoyance.

PUSS CATERPILLAR (Megalopyge opercularis S. & A.)

North Carolina. C. H. Brannon (September 9): A specimen of puss caterpillar was sent in from Pasquotank County with no information as to host plant.

SADDLEBACK CATERPILLAR (Sibine stimulea Clem.)

Maryland. E. N. Cory (September 7): The saddleback caterpillar is attacking rose at Annapolis.

Mississippi. C. Lyle (September 24): Saddleback caterpillars were received from Liberty on August 26, from McComb on September 12, and from Brookhaven on September 14. People sending them in had been stung.

DOG FLEA (Ctenocephalides canis Curt.)

Iowa. H. E. Jaques (September 23): Southeastern Iowa seems to have an epidemic of dog fleas in homes, where they are becoming unbearable.

AMERICAN DOG TICK (Dermacentor variabilis Say)

Maryland. F. C. Bishopp (September): No specimens of American dog tick have been collected or reported during September, yet four cases of Rocky Mountain spotted fever have been reported for the period from September 1 to 25, inclusive. They are as follows: Baltimore County, Owing Mills, 1; Kent County, Chestertown, 1; Carroll County, Taneytown, 1; Anne Arundel County, Deale, 1.

BLACK WIDOW SPIDER (Latrodectus mactans F.)

Mississippi. C. Lyle (September 24): A complaint of the black widow spider was received from Eupora on September 4. This spider has attracted practically no attention this year, as compared to 1935.

Nebraska. M. H. Swenk (September 23): Reports of black widow spider were received from Custer County on August 28, from Cheyenne County on August 30, from Garden County on September 4, and from Brown County on September 18.

Utah. G. F. Knowlton (September 17): Black widow spiders have caused annoyance by invading homes at Salt Lake City and Brigham City recently.

CATTLE

SCREWORM (Cochliomyia americana C. & P.)

United States. W. E. Dove (September 26): At present the low incidence of screwworm cases in the Southeastern States permits curtailment of control work of the Bureau in some areas and more intensive work in southern Georgia and Florida. From June 5 to September 18 there were 16,187 reported cases of myiasis in Alabama, Florida, Georgia, Louisiana, Mississippi, and South Carolina, and of these 15,617 were reported from southern Georgia and Florida. During the 3-week period ending September 18, there were reported 3,175 cases from Florida; 125 from Georgia; 22 from Alabama; 49 from Louisiana; 2 from Mississippi; and 8 from South Carolina. All of these reports include infestations of blowfly maggots as well as screwworms. During this period collections of larvae were obtained from wounds where possible, but only ones collected in the stockyards at New Orleans, in southern Georgia, and in Florida were identified as C. americana. In the Southwestern States 93,952 cases of myiasis were reported from June 5 to September 18 as follows: Arizona, 601; California, 152; New Mexico, 15,137; Oklahoma, 666; and Texas (approximately 75 counties) 77,396. In these States control work is well received by stockmen and the application of recommendations is reducing cases by preventing infestations. From September 1 to 18 there were 16,445 cases as follows: New Mexico, 5,225; California, 88; Arizona, 317; Oklahoma, 266; and Texas, 10,549. Of these cases, 2,143 occurred in tick bites, 1,652 in navels of young, 3,193 in snags and scratches, and 2,640 in other causes which are not easily prevented. The incidence is unusually low in injuries resulting from surgical operations. In castrations there were 882, in dehorning 533, in marking 98, in branding 999, and in shear cuts 3,040.

HORSES

HORSE BOTFLY (Gastrophilus intestinalis Deg.)

Tennessee. G. M. Bentley (September 3): Horse botflies have been noticed in great numbers recently in western Tennessee by J. C. Moser.

H O U S E H O L D A N D S T O R E D - P R O D U C T S

I N S E C T S

ANTS (Formicidae)

Massachusetts. A. I. Bourne (September 24): Throughout the season there have been many complaints of ants in lawns and as household pests.

Virginia. E. A. Back (September): The mound building ant (Formica exsectoides Forel.) is very abundant about the northern edges of the greens of a golf and country club at Cherrydale. Numerous mounds in the brush and vines just off the greens attracted much attention this month.

Florida. J. R. Watson (September 24): The so-called fire ants, Wasmannia auropunctata Roger, have been sent in from Arcadia. They are becoming very abundant and troublesome about Fort Lauderdale.

Tennessee. E. W. Howe (September): We have had numerous complaints of annoyance from ants at Clarksville.

Mississippi. C. Lyle and assistants (September 24): Many complaints of ants have been received from nearly all parts of the State during the past month. The Argentine ant (Iridomyrmex humilis Mayr) was causing much annoyance in places where no campaigns have been conducted. The ill-smelling ant (I. pruinosus Roger), the tiny black ant (Monomorium minimum Buckl.), Pharaoh's ant (M. pharaonis L.), the black carpenter ant (Camponotus herculeanus pennsylvanicus Deg.), and the fire ant, (Solenopsis xyloni McCook) were responsible for numerous complaints.

Nebraska. M. H. Swenk (September 23): On September 11 the large black carpenter ant (C. herculeanus pennsylvanicus) was reported to be infesting a large boxelder tree in Hitchcock County. Fornica fusca L. was reported to be infesting the fruits in a large patch of strawberries in Custer County on the 12th.

POWDER POST BEETLES (Lyctus spp.)

Massachusetts. A. I. Bourne (September 24): Our attention has been called to many instances of damage caused by powder post beetles. The large number of inquiries in regard to this pest have probably been due to the wide publicity given to termites. Many cases of supposed termite damage proved to be due either to carpenter ants or powder post beetles.

Connecticut. E. P. Felt (September 23): Powder post beetles came to notice at Stamford on account of extensive injury to an inner veneer, presumably of sapwood, in a dining-room table.

FURNITURE CARPET BEETLE (Anthrenus vorax Waterh.)

Maryland. E. A. Back (September): The furniture carpet beetle was received on September 15 from Baltimore, where it was reported to be seriously infesting a house. This is the first record in the Bureau of the presence of this pest in Maryland. It was also received during the past month from six localities in Washington, D. C.

VARIED CARPET BEETLE (Anthrenus verbasci L.)

General. E. A. Back (September): The varied carpet beetle was reported as a household pest during the past month by correspondents from Baltimore, Md.; Newport News, Va.; Seattle, Wash.; Portland, Oreg.; and San Diego, Calif.

CARPET BEETLE (Anthrenus scrophulariae L.)

Maine. E. A. Back (September): A pupa of the common carpet beetle, mailed at

Castine, was received as a newly emerged adult in Washington, D. C., on September 20.

A LARDER BEETLE (Dermestes cadaverinus F.)

Virginia. E. A. Back (September): Adults were received on July 31 from Portsmouth, where they were said to be abundant on a vacant lot.

SAW-TOOTHED GRAIN BEETLE (Oryzaephilus surinamensis L.)

Nebraska. M. H. Swenk (September 23): Specimens of the saw-toothed grain beetle were received on August 27 from Pierce County and on September 1 from Garden County. In the former report the pest was said to be infesting corn and rye, while the latter stated that large numbers of the insects were entering a building.

CORN SAP BEETLE (Carpophilus dimidiatus F.)

Mississippi. C. Lyle (September 24): An unusually severe outbreak of the corn sap beetle has occurred in the warehouse of a milling firm at Meridian during the past month. In the afternoons the air was literally filled with flying beetles.

DRIED FRUIT BEETLE (Carpophilus hemipterus L.)

California. P. Simmons (August 21): This is our first record of the species in cactus pears. It was reported from Santa Barbara in the fallen, decaying cactus fruit.

A CERAMBYCID (Eburia quadrigeminata Say)

Indiana. E. A. Back (September): A specimen of the four-lined ash borer was received on August 24 from a furniture dealer in St. Paul with the statement that it was captured as it was emerging from an oak dining-room suite sold by him 25 years ago.

A TENEBRIONID (Eleodes suturalis Say)

Wyoming. E. A. Back (September): The beetle was received on August 3 from a correspondent in Casper. Beetles were prevalent on the ground floor of a house without a cellar, and were annoying because of the odor they emitted when disturbed.

SILVERFISH (Lepisma saccharina L.)

Tennessee. E. W. Howe (September): We have had numerous complaints of annoyance from silverfish.

Mississippi. C. Lyle (September 24): Serious injury to clothing and wall paper by silverfish was reported in Okolona on September 11. Wall paper was also being damaged at Starkville and State College.

WEBBING CLOTHES MOTH (Tineola biselliella Hum.)

Nebraska. M. H. Swenk (September 23): Clothes moths were reported infesting upholstered furniture in Sherman County on August 29.

SPRINGTAILS (Collembola)

New York. E. A. Back (September): Springtails were received on August 16 from New York City, where they were reported to be very abundant in a new apartment house. They were first noticed on the outside window sills. They later invaded the entire apartment. From early in August to September 12 they were reported from a country home at Beaver Dam Lake, Salisbury Mills, where they were troublesome on the steps and window sills of a house.